



King County

Department of Natural Resources and Parks
Water and Land Resources Division
Noxious Weed Control Program
206-296-0290 TTY Relay: 711

BEST MANAGEMENT PRACTICES

Spanish Broom (*Spartium junceum*) Scotch Broom (*Cytisus scoparius*)

Fabaceae

Class A & B Noxious Weeds

Impact

- **Spanish broom** and **Scotch broom** displace native and beneficial plants causing considerable loss of grassland and open forest habitat.
- Seeds and other plant parts are toxic to humans, horses and livestock.
- These plants are considered potential fire hazards and may increase the intensity of grassland and forest fires.
- These plants are difficult to eradicate due to substantial and long-lived seed bank.



Spanish Broom infestation in Seattle



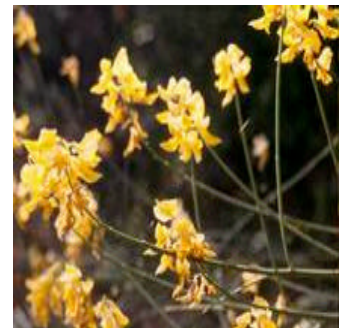
Scotch broom infestation in a field.

Description

Spanish broom and Scotch broom are evergreen shrubs with yellow flowers in the legume family, reaching from 6 to 10 feet tall.

Spanish Broom - Class A Noxious Weed

- Its flowers are fragrant and are borne on the ends of rounded, erect and primarily leafless stems.
- Leaves are simple, one-parted alternate, are less than one inch long, and are short-lived.
- Fruits are hairy seedpods, flat and linear, up to three inches long.



Spanish Broom

Scotch Broom – Class B Noxious Weed

- Branches are erect and angled with prominent ridges, and its flowers are borne on the entire length of the stem.
- The small short-lived leaves can be simple but are generally three-parted.
- Its flat seedpods have hairs only on the margins and are one to two inches long.



Scotch Broom

Habitat

- In King County, both brooms can invade and impact disturbed areas, pastures, agricultural lands, harvested timberlands, roadsides, trails, state parks and vacant lots.
- Both broom species thrive in areas with full sun and its seedlings can establish under the canopy of mature plants in full shade.
- Brooms are tolerant of low-nutrient soils as well as a wide range of soil moisture conditions. Spanish broom is the most drought resistant of the broom species.

Reproduction

Brooms spread primarily by seed dispersion and the seeds are viable in soil from 5 to 60 years. When mature the seedpods suddenly split and eject seeds up to 20 feet away. Broom seeds can be further dispersed by ants collecting the seeds and by water. Over 10,000 seeds can be produced per plant.

Spanish broom

- Flowers from **July** to early frost. Seeds are produced in August through September.

Scotch broom

- Flowers from **March to June**. Seeds are produced in late summer.

Control Methods

The preferred management plan uses Integrated Pest Management (IPM). IPM involves selecting from a range of possible control methods to match the management requirements of each specific site. The goal is to maximize effective control and to minimize negative environmental, economic and social impacts. Management may require dedication over a number of years, and should allow for flexibility in methods as appropriate.

Early Detection and Prevention

- Do not purchase or introduce these invasive plants into your yard or landscape. According to state quarantine laws it is illegal to buy, sell or offer Spanish broom, Scotch broom, or any of their cultivars for sale.
- Look for flowering and pre-flowering plants from **middle May to late June**.
- Isolated small populations can be dug up but the site should be monitored for several years for plants growing from root fragments and from the seed bank.
- After the control is complete follow up should include re-vegetation of the site with non-invasive vegetation to compete with and prevent establishment of broom seedlings.
- Prevent plants from spreading from existing populations by washing vehicles, boots and animals that have been in infested areas.

Manual

- For small sites with few plants, pull or dig up plants and remove as much root as possible so the plant will not re-sprout. This method can be highly labor-intensive and to be fully effective all mature plants in the site need to be pulled so that no new seeds are produced.
- Pulling of medium to large plants is much easier with a Weed Wrench™, a solid steel tool for pulling woody plants. Several wrenches are available to borrow from the King County Noxious Weed Control Program, or they may be purchased from New Tribe at (541) 476-9492 or newtribe@cdsnet.net

- Expect the level of control work to be intensive for the first several years due to seed banks and the soil disturbance that occurs when pulling or digging.
- All plant parts including flowers and seeds can be placed with household yard waste **only** if recycled at a commercial composting facility or can be disposed at a King County transfer station. **Do not compost broom seeds in backyard style bins** because they cannot meet the temperature and time conditions needed for seed destruction.

Mechanical

- Mechanical control methods can be used on larger infestations with either manually operated brush cutting tools or tractor mounted mowers.
- Plants should be cut when flowering to prevent seed production but may not increase plant mortality. A late summer cutting after the broom has gone to seed can exhaust root reserves and decrease resprouting.
- Mowing, cutting, or other mechanical control techniques alone are generally not as effective and will either need to be repeated throughout the season or combined with other control methods to prevent resprouting, especially in younger plants.
- Mature plants with a stem diameter of greater than 2" are the most susceptible to mechanical control and may not need to be combined with other methods.

Controlled Burning

- Controlled burning can be effective at removing dense broom infestations. Check local regulations for special permits, burn bans, or other restrictions.

Biological

- There are biological control insects for Scotch broom currently being released in Washington, but results are still tentative. No biological controls have been identified for Spanish broom.
- Grazing by goats and consumption of seeds by chickens have been shown to reduce broom infestations.

Chemical

- Chemical control options may differ for private, commercial and government agency users. Follow all label directions. Herbicides should only be applied at the rates and for the site conditions / land usage specified on the label.
- **Certain herbicides can not be used in aquatic areas or their buffers.** If herbicides are used, make sure that their use is allowed at your site. Contact your local noxious weed control program for control guidelines in your area.
- Several herbicides are recommended by the PNW Weed Control Handbook for broom control. For site specific herbicide recommendations, please contact the King County Noxious Weed Control Program.
- The addition of a suitable surfactant to the herbicide may improve the control results.
- Non-selective herbicides are effective but may damage grass and other vegetation. Treatment with a non-selective herbicide needs to be followed by re-seeding with grass. Without re-seeding, bare areas will be re-infested from the seed bank and by any missed plants.
- Selective herbicides that target only broadleaf plants may be used in grassy areas.

- The best time to control broom is in the spring when plants are actively growing. Basal bark and other non-foliar treatments can be performed any time of the year depending on the herbicide used.

Legal Status in King County:

Spanish broom is a Class A Noxious Weed. The King County Noxious Weed Control Board requires property owners to eradicate Spanish broom on private and public lands throughout the county.

Scotch Broom is a Class B Noxious Weed. The King County Noxious Weed Control Board currently requires property owners to control Scotch broom on public lands only in selected areas of the county.

Local Distribution

There are known Spanish broom infestations in most of the cities and rural areas of King County including Lake Forest Park, Shoreline, Seattle, Vashon Island and Federal Way.

Scotch broom is widely distributed throughout the county, especially along freeways, in parks and in disturbed vacant lots.

History

- **Spanish broom** is a native of the Mediterranean region and Canary Islands. It was introduced as an ornamental in California in the 1840's and has since invaded roadsides, riverbanks, and grasslands. Its distribution in Washington is not well known, partially because of its resemblance to Scotch broom.
- **Scotch broom** is a native of the British Isles and central Europe. It was also introduced as a garden ornamental in the 1860's. Scotch broom was planted along roadsides and cut banks to prevent soil erosion. Scotch broom is found throughout most of Washington and other western states.

References

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